

REMARKS

In response to the Official Action mailed May 10, 2002, Applicants propose to amend their application and request reconsideration. In this Amendment, claims 1, 3-6, 17, and 22 are cancelled leaving claims 7, 9-13, 15, and 18-21 pending.

In this Amendment, a number of claims are proposed to be cancelled. Further, it is proposed combine claims 13 and 22 as amended claim 13. Claims 18-21 are retained but as depending from claim 13, not from cancelled claim 17, a claim which had depended from claim 1. The limitations of dependent claims 18-21 are identical to the limitations of dependent claims 9-12, respectively, and therefore do not introduce new issues in the patent application.

The invention pertains to a lithium polymer battery. In each of the claimed battery structures there is a positive plate, either including aluminum or consisting of aluminum, that has a plurality of openings and a negative plate consisting of a copper foil free of holes. Obviously, each of the claimed battery structure includes other elements, such as a separator and positive and negative active material layers. However, the following comments focus on the structures of the positive and negative plates.

All claims were rejected based upon Fauteux et al. (U.S. Patent 4,925,752, hereafter Fauteux). This rejection is, again, respectfully traversed.

Applicants respectfully note an error in the legal form of the rejection. Claim 13 was rejected as unpatentable over Fauteux, considered by itself, whereas claim 22, a dependent claim that depended from claim 13, was rejected as anticipated by Fauteux. Clearly, if a parent claim is not anticipated by a reference, then a dependent claim depending from that parent claim cannot properly be rejected as anticipated by that same reference. A search of the rejection mailed November 30, 2001 and of the rejection of May 10, 2002 fails to disclose the intended rejection of claim 22. It appears that claims 13 and 15, both independent claims, were rejected as obvious in view of Fauteux because that reference does not disclose a plurality of bi-cells stacked on each other. It is understood, in view of the rejection for anticipation of independent claim 7, to be the Examiner's position that the individual bi-cells are anticipated by Fauteux. The following comments are based upon that understanding.

All of the claims pending upon entry of the foregoing Amendment describe lithium battery structures in which the negative plate includes a negative collector, that negative collector "consisting of a copper foil free of holes". At pages 3 and 4 of the final rejection, the Examiner directed attention to the description in column 3 of Fauteux as describing the composition of anode layers which "may take the form of a lithium foil, a lithium coated foil[,] such as nickel or copper foil[,] having a layer of lithium deposited on its surface[,] or a lithium alloy." That description does not, contrary to the interpretation set out at pages 3 and 4 of the Official Action, describe a current collector "consisting of a copper foil". The description in

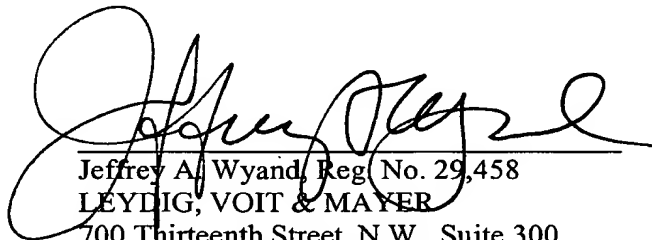
Fauteux does describe a number of different collector structures encompassing a current collector "including" a copper foil but not "consisting of" a copper foil. The difference is quite significant. See MPEP 2111.03, particularly at page 2100-50. Fauteux does not describe a current collector "consisting of a copper foil free of holes".

The Examiner is respectfully requested to reconsider the rejection of examined claims 7, 15, and 22 which are now claims 7, 13, and 15, with regard to the structure claimed. Claim 7 clearly cannot be anticipated by Fauteux because Fauteux does not describe the negative collector structure as claimed in the claim submitted February 28, 2002. It appears that the claim rejection may have been based on a claim interpretation contrary to the cited MPEP section. The rejection of claims as anticipated cannot be properly maintained as to any pending claim and should, upon reconsideration, be withdrawn. The rejection of claims as obvious over Fauteux considered by itself, fails upon the withdrawal of the rejection of the independent claims as anticipated by Fauteux.

In this Amendment, claims are proposed to be cancelled, two claims are combined to supply claim 13, and, as already pointed out, the dependencies of certain dependent claims are changed in a way that cannot introduce any new issue into the patent application. Accordingly, the Amendment should be entered because it places the application in better form for appeal even if the Examiner declines to allow the claims pending upon entry of the Amendment.

Prompt and favorable reconsideration is earnestly solicited.

Respectfully submitted,



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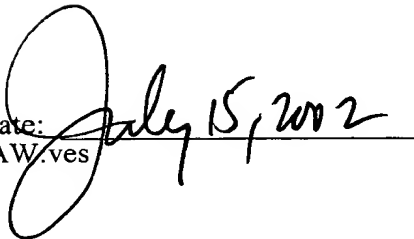
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**RESPONSE UNDER 37 CFR 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 1745**

PATENT
Attorney Docket No. 400396/YPLEE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

CHANG et al.

Application No. 09/416,270

Filed: October 12, 1999

For: LITHIUM POLYMER
BATTERY

Art Unit: 1745

Examiner: T. Dove

**AMENDMENTS TO CLAIMS MADE IN RESPONSE
TO OFFICE ACTION DATED MAY 10, 2002**

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Amendments to existing claims:

Cancel claims 1, 3-6, 17, and 22.

13. (Thrice Amended) A lithium polymer battery comprising a plurality of bi-cells stacked on each other, wherein each bi-cell comprises
a positive plate including a positive collector, consisting of aluminum having a plurality of openings, a positive active material layer on both surfaces of the aluminum, and a positive tap electrically connected to the positive collector;
a negative plate including a negative collector, ~~comprising~~ consisting of a copper foil free of holes, a negative active material layer on both surfaces of the copper foil, and a negative tap electrically connected to the copper foil; and
a separator located between the positive and negative plates, insulating the positive and negative plates from each other, wherein the positive taps of the bi-cells are connected together as a first terminal of the battery and the negative taps of the bi-cells are connected together as a second terminal of the battery.

18. (Amended) The lithium polymer battery of claim ~~17~~ 13, wherein the positive collector is expanded aluminum.

19. (Amended) The lithium polymer battery of claim ~~17~~ 13, wherein the positive collector is punched aluminum.

20. (Amended) The lithium polymer battery of claim ~~17~~ 13, wherein the positive and negative active material layers are coatings of positive and negative active material slurries, respectively, on at least one surface of the positive collector and at least one surface of the negative collector, respectively.

21. (Amended) The lithium polymer battery of claim ~~17~~ 13, wherein the positive plate includes the positive active material layer on both sides of the positive collector and the negative plate includes the negative active material layer on both sides of the negative collector.